

**Response**

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Serial No.: 10/042,025

Confirmation No.: 5745

Filed: October 25, 2001

For: METHODS FOR FORMING ROUGH RUTHENIUM-CONTAINING LAYERS AND  
STRUCTURES, METHODS USING SAME**Remarks**

The Office Action mailed June 5, 2003 has been received and reviewed. Reconsideration and withdrawal of the rejections are respectfully requested in view of the following remarks.

**The 35 U.S.C. §103 Rejection**

The Examiner rejected claims 30-40 under 35 U.S.C. §103 as being unpatentable over Hooykaas (U.S. Patent No. 4,953,989). The Examiner alleges that Hooykaas describes "a conductive structure comprising at least a rough ruthenium layer, wherein a surface of the rough ruthenium layer or the rough ruthenium oxide has a surface area greater than a surface area of a completely smooth surface." The Examiner further alleges that although Hooykaas "does not disclose the surface of the rough ruthenium layer has a surface area greater than about 1.2 times a surface area of a completely smooth surface having a substantially identical shape as the surface of the rough ruthenium layer", that such a ratio would be an obvious variation in design. Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

Each of the pending claims includes at least a rough ruthenium layer. Hooykaas describes a gas bearing part having a surface which has a roughness that is less than, for example, 10 ru. The "ru" used in the specification has nothing to do with the use of ruthenium and appears to be a surface roughness parameter being discussed therein. The bearing part is made of aluminum as described in the claims section of the specification. In other words, Hooykaas does not describe use of a ruthenium layer, and therefore, does not describe, teach, or suggest all the claim limitations of any of the pending claims.

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For at least the above reasons, claims 30-40 are not obvious in view of the cited reference and it is requested that the rejection be withdrawn and the claims be allowed to issue. In view of the reference lacking any teaching of ruthenium, Applicants only generally traverse the other statements made by the Examiner (e.g., that the ratio is a design variation) at this time. Any further remarks would appear to be unnecessary.

**Summary**

It is respectfully submitted that the pending are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for

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By

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5 Sept 2003  
Date**CERTIFICATE UNDER 37 CFR §1.8.**

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 5th day of September, 2003, at 12:02pm (Central Time).

By: Name: SARA E. OLSON